N° 12,549 A.D. 1913

Date of Application, 29th May, 1913—Accepted, 30th Oct., 1913

COMPLETE SPECIFICATION.

Improvements in Night Sights for Rifles and the like.

I, Friedrich Albin Schanz, of 36, Pragerstrasse, Dresden-A, Germany, Doctor, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

With known night sights having a luminous front sight the sighting eye sees the luminous front sight but does not see the edges of the dark sighting notch of the back sight. Sighting is therefore difficult and under some conditions takes all but skilled marksmen more time than they are allowed.

In accordance with the present invention for the luminous front sight there is substituted a dark sighting mark on a light surface artificially illuminated from behind, this light surface while rendering the front sight visible forming at the same time a light background on which also the edges of the dark sighting notch of the back sight can be perceived. By means of this new arrangement both the front sight and the sighting notch of the back sight are rendered visible.

One embodiment of the invention is illustrated in the accompanying drawing in which Fig. 1 is a side view of the rifle, Fig. 2 shows the front part of the rifle barrel with the front sight in side elevation, Fig. 3 is a cross section through the barrel with a view of the front sight seen from behind. Fig. 4 is a plan, Fig. 5 is an inverted plan of the small lamp casing for the front sight. Fig. 6 is a vertical longitudinal section of the same. Fig. 7 shows the view obtained in sighting taking perspective conditions into account. Fig. 8 shows the small electric lamp with its frame.

As shown to the rifle barrel 1 is secured the plate 2 into which is fitted from the side the usual front sight 3 with its dove tailed base 4. These known parts have been used for detachably securing the front sight support of the night sighting device.

This support consists of a small lamp casing 5 which is pushed forwards with its forked arm 6 below the base of the front sight 4, so that the forked arms embrace the plate 2. The pin of the spring pawl 7 by entering the plate 2 ensures the connection therewith.

The cylindrical transverse passage in the lamp casing 5 receives a small electric lamp 8 which is cemented in a framing 9 illustrated in Fig. 8. This framing of brass forms the one conducting pole and is connected with the source of current through the intermediary of the metal of the lamp casing and the barrel. The second conducting pole is formed by the pin 11 projecting from the insulating disc 10. Against this pin bears the contact spring 12 which is connected by means of the conducting rings 13, 14, with the terminal 15 of the insulated conductor 16 while a non-conducting layer 17 ensures insulation from the rifle barrel.

The side of the lamp casing adjacent the marksman is inclined and has an opalescent sheet of glass 18 through which passes the light from the small electric lamp 8 but which can also reflect the daylight passing in from above to the eye of the marksman. Therefore, this front sight can also be used in the twilight without artificial light. At the same side as the lamp casing is located the plate 19 which is cut out in the manner shown in Figs. 3 and 4. The

[*Price 8d.*]

small circular plate 20 formed by cutting away the plate 19 serves as the front sight; it extends to the upper edge of the opalescent sheet of glass.

In sighting, the front sight is thus seen as a dark mark on a light ground. On this light ground can be seen at the same time the edges of the sighting notch of the back sight which otherwise could not be seen. Thus the front sight and sighting notch can be brought into line more easily than with a luminous sight and by the appearance or absence of a light edge over the edge of the sighting notch, a reliable starting point for determining the elevation between the front sight and sighting notch can be obtained. Therefore, full sight or level sight can be taken with exactitude.

By means of the spindle 21 shown in Fig. 5 which passes through the threaded extension 22 of the plate 19 the front sighting mark 20 can be transversely adjusted.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A night sight wherein the front sight is arranged as a dark mark (20) on a light surface (18) artificially illuminated from behind, which surface forms at the same time a light ground for the dark sighting notch of the back sight.

2. An embodiment of the night sight claimed in Claim 1 wherein the light surface (18) is formed by the opalescent sheet of glass arranged behind a lamp casing (5) containing a small electric lamp (8).

3. An embodiment of the night sight as claimed in Claim 1 wherein the front sight support (5) is detachably mounted on the plate 2 which carries the usual fore sight, by means of fork shaped arms (6) and a spring pawl (7).

Dated this 29th day of May, 1913.

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SCHANZ'S Complete Specification.

(1 SHEET)

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 1.

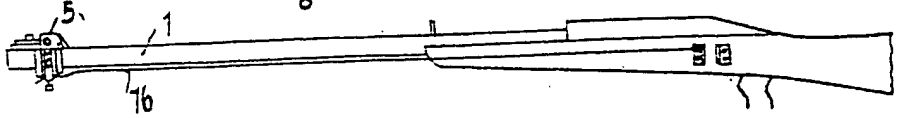


Fig. 2.

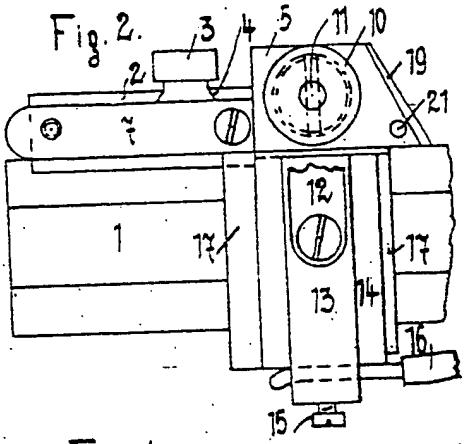


Fig. 3.

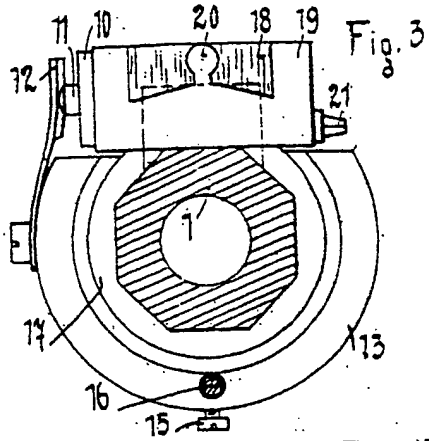


Fig. 4.

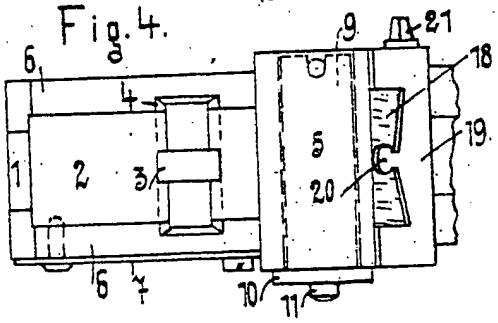


Fig. 5.

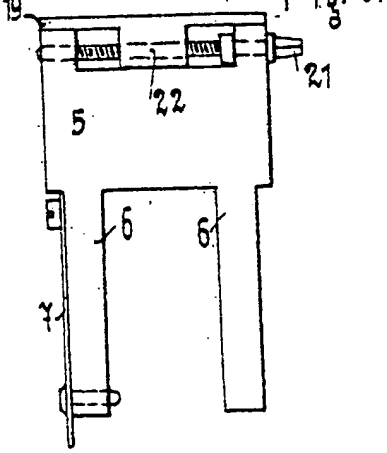


Fig. 6.

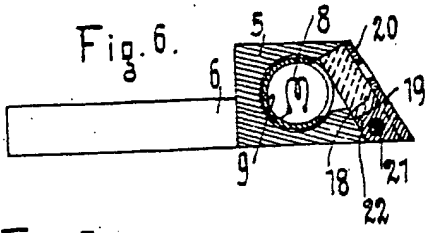


Fig. 7.

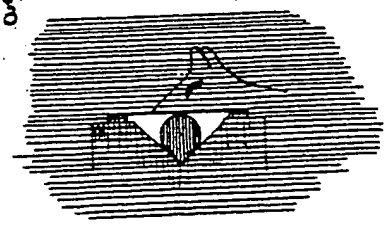
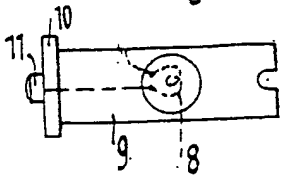


Fig. 8.



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